

# Lake Davis 2007 Pike Eradication Project

Stella Borucki

Department of Fish and Game  
Pesticide Investigations Unit

# Background

- Pike are non-native species. If allowed to spread, pike would jeopardize fishery resources throughout the State.
- Pike discovered again in Lake Davis in 1999 after eradication in 1997.
- Decision was made several years later to eradicate pike using rotenone formulation.





Lake Davis

Sacramento - San Joaquin Delta

# The Project

- Lake has 84,000 acre-feet of water at capacity. It was treated at 41,500 acre-feet.
- Upper tributaries treated twice.
- Used about 17,000 gallons of CFT Legumine on September 24-28, 2007.
- Cut discharge from dam.



# The “Other” Project: Public Relations

1997



2007





# Public Relations Efforts

- Held off on making decision for several years (tried other eradication means).
- Encouraged public participation in process.
- More cooperation with other agencies.

# CFT Legumine

- Active ingredient: rotenone
- Contains no piperonyl butoxide (most persistent constituent in 1997).
- Does contain new ingredients: methyl pyrrolidinone (MP), diethylene glycol ethyl ether (DEGEE), Fennedefo 99

# Monitoring

- In conjunction with Department of Public Health
- Lake: water and sediment
- As condition of allowing public contact with lake (reopen forest): non-detects of all chemical constituents.
- We had data on rotenone but not new ingredients.





# Results

- Rotenone: persisted in water about 60 days.  
Sediment?
- VOCs, Semi-VOCs: less than a week in water,  
not detected in sediment.

# Results: new ingredients

- MP: 38 days in water, 60 days in sediment.
- DEGEE: 70 days in water, 33 days in sediment.
- Fennedefo 99: We're almost there!



# Success?

- Concentrations in lake and tributaries reached desired levels.
- Fish in lake died.
- Electrofishing and gill nets post-project yielded no pike or trout (similar sensitivities).



# Summary

- Lake Davis treated to eradicate pike in 1997 and 2007.
- Technical and public relations changes.
- Part of continuing effort to control non-native invasive species in California.